User's Manual

12-Inch Dual Voice Coil Subwoofer

AR12D

ARMOR

BOSS®

AUDIO SYSTEMS

AR12D

12-Inch Dual Voice Coil Subwoofer

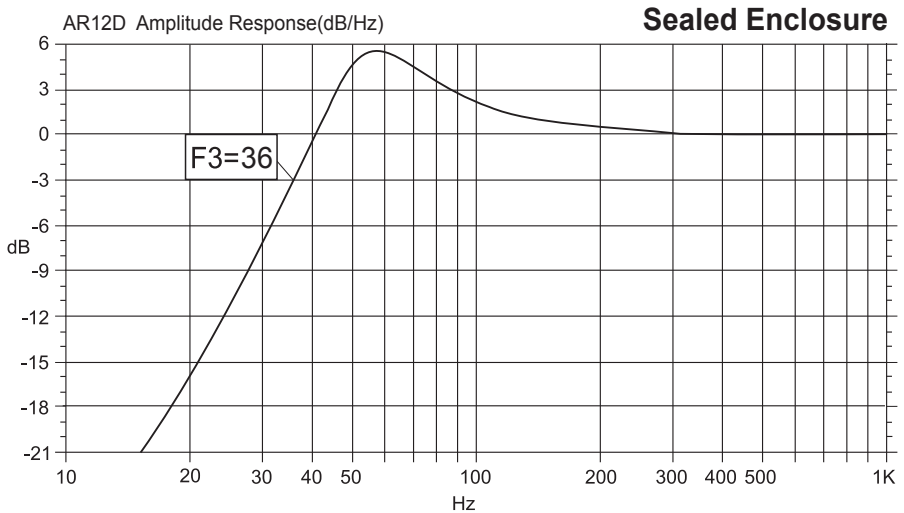
02.2012

BOSS Audio Systems
3451 Lunar Court • Oxnard, CA 93030
www.bossaudio.com
800.999.1236

tech support: www.bossaudio.com/support

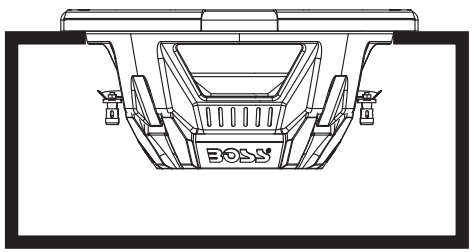
Recommended Enclosures

Please note : Our recommended box volumes are given for internal air requirements.



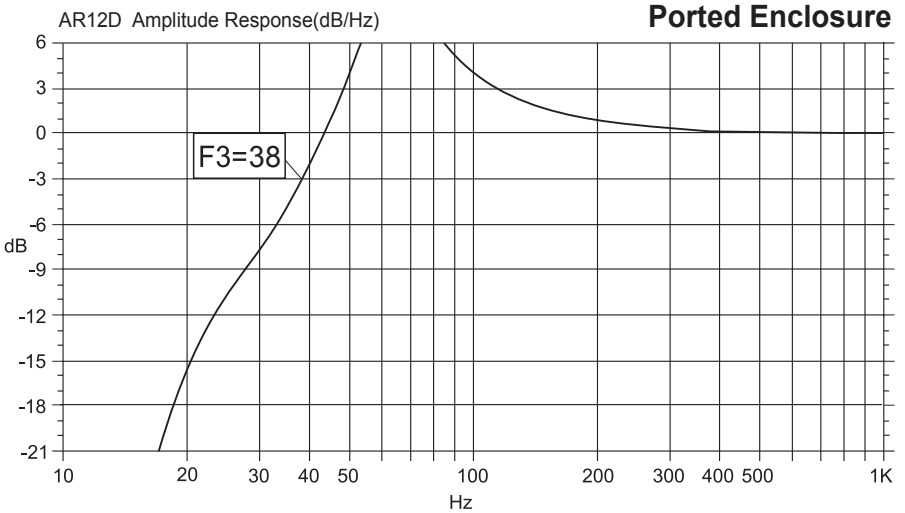
Frequency

Sealed Enclosure (Recommended)



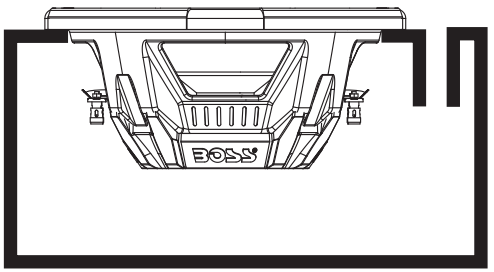
Box Volume:
1.0 (cu. ft.) to 2.5 (cu. ft.)

Box is given as internal air volume including driver displacement



Frequency

Ported Enclosure



Box Volume:
1.0 (cu. ft.) to 1.6 (cu. ft.)

Box is given as internal air volume including driver displacement

Port Frequency	**:**	**40 to 33**	**Hz**
Port Diameter	**:**	**4**	**Inches**
Port Length	**:**	**18 to 16**	**Inches**

Product Specifications

Speaker Impedance	table	2ohms	8ohms
Free Air Resonance	(Fs)	28	28
Total Q Driver @ FS including all resistances	(Qts)	1.015	0.985
Q of the Driver @ FS including non electrical resistance only	(Qms)	5.429	5.225
Q of the Driver @ FS including electrical resistance only	(Qes)	1.248	1.214
The Driver's compliance expressed as an equivalent	(Vas)	3.024	3.015
Volume of all (cubic Ft.)			
The Driver's linear displacement (inches)	(Xmax)	0.356	0.356
The DC resistance of the driver's single voice coil(ohm)	(Re)	1.8	7.2
Thermal Power rating of Driver (R.M.S./Peak)	(Pe)	1200W/2400W	1200W/2400W
The Driver's sensitivity (dB)	(Sens)	94	94

Calculating Enclosures

It is difficult to give exact box dimensions that are universal for all cars and trucks. It is for this reason that you must be able to calculate the space which you have available in order to achieve the proper air volume required.

It is recommended to build your enclosure from 3/4" thick MDF (medium density fiberboard). Make sure the enclosure is sealed air tight.

Calculating External Volume

1) To calculate box volume, measure the outside Width x Height x Depth of the enclosure. Example 12" x 14" x 9" = 1512"

2) Next you must convert cubic inches into cubic feet. To do this, you must divide the cubic inch total by 1728". Example 1512 ÷ 1728= .875 Cubic feet

Calculating Internal Volume

1) To calculate the internal (net) volume of the above box you must first multiply the thickness of the wood you are using by Two (2) Example; 3/4" x 2"=1.5"

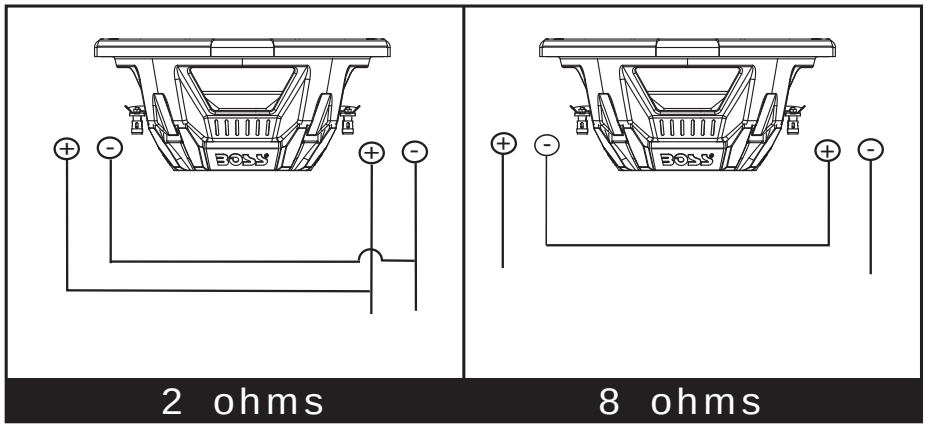
2) Next Subtract 1.5 from each of the outside measurements of the box.
Width 12-1.5=10.5 Height 14-1.5=12.5 Depth 9-1.5=7.5

3) Multiply the new totals (H x W x D) Example : 10.5 x 12.5 x 7.5=984.375

4) Next you must convert cubic inches into cubic feet. To do this, you must divide the cubic inch total by 1728" Example 984.375÷1728=.5696 Cubic feet

Wiring

Please take every precaution to wire your DVC woofers for the correct impedance



12” (305mm) Subwoofer

(1200 Watts RMS Sealed Enclosure)

- **12” (305mm) Dual Voice Coil Subwoofer**
- **2400 Watts Peak Power/1200 Watts RMS**
- **Frequency Response: 28Hz-1.5kHz**
- **Sensitivity: 94 dB (1 Watt/1 Meter)**
- **Impedance: Dual 4 OHMS**
- **Cone Material: Color Chrome Treated Poly Injection**
- **Butyl Rubber Surround**
- **Dual 2” (51mm) High Temperature KAPTON Voice Coil**
- **Mounting Depth: 5-3/16” (132mm)**